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## PROGRAM LIBRARY

DECUS NO.	8-517
TITLE	BOWLING LEAGUE RESULTS, STANDINGS AND AVERAGES PROGRAM
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COMPANY	Digital Equipment Corporation Maynard, Massachusetts
DATE	February 14, 1972
SOURCE LANGUAGE	OS/8 FORTRAN

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# BOWLING LEAGUE RESULTS, STANDINGS AND AVERAGES PROGRAM

DECUS Program Library Write-up

DECUS NO. 8-517

## ABSTRACT

### 1. Purpose and Features of these programs.

The purpose of these programs is to automate the task of preparing weekly bowling results. This system was written for a 16-team mixed league and has room for storing data for 128 bowlers.

Information stored for each bowler includes name, location, telephone extension, games bowled, total pinfall, high game and high triple. Individual highs are printed out for high single and triple for the week and high single, triple and average for the year. Both male and female highs are given.

The programs run under OS/8 on any computer that supports OS/8 and has an LP08 (line printer) and High-Speed Paper Tape Read/Punch.

### 2. Mathematical Approach, Formulas, and Equations.

Standard equations are used for calculating averages.

### 3. Relation to other programs.

These programs were written in FORTRAN under OS/8 using the device independent I/O, chaining, and in-line SABR coding features. OS/8 Edit is used to prepare the weekly input tape. OS/8 Pip is used to punch the input tape and to save the historical back-up file.

### 4. Input and Output.

Input is on high-speed paper tape for current data and the default storage device (DSK:) for historical data. Output is on the line printer and DSK:.

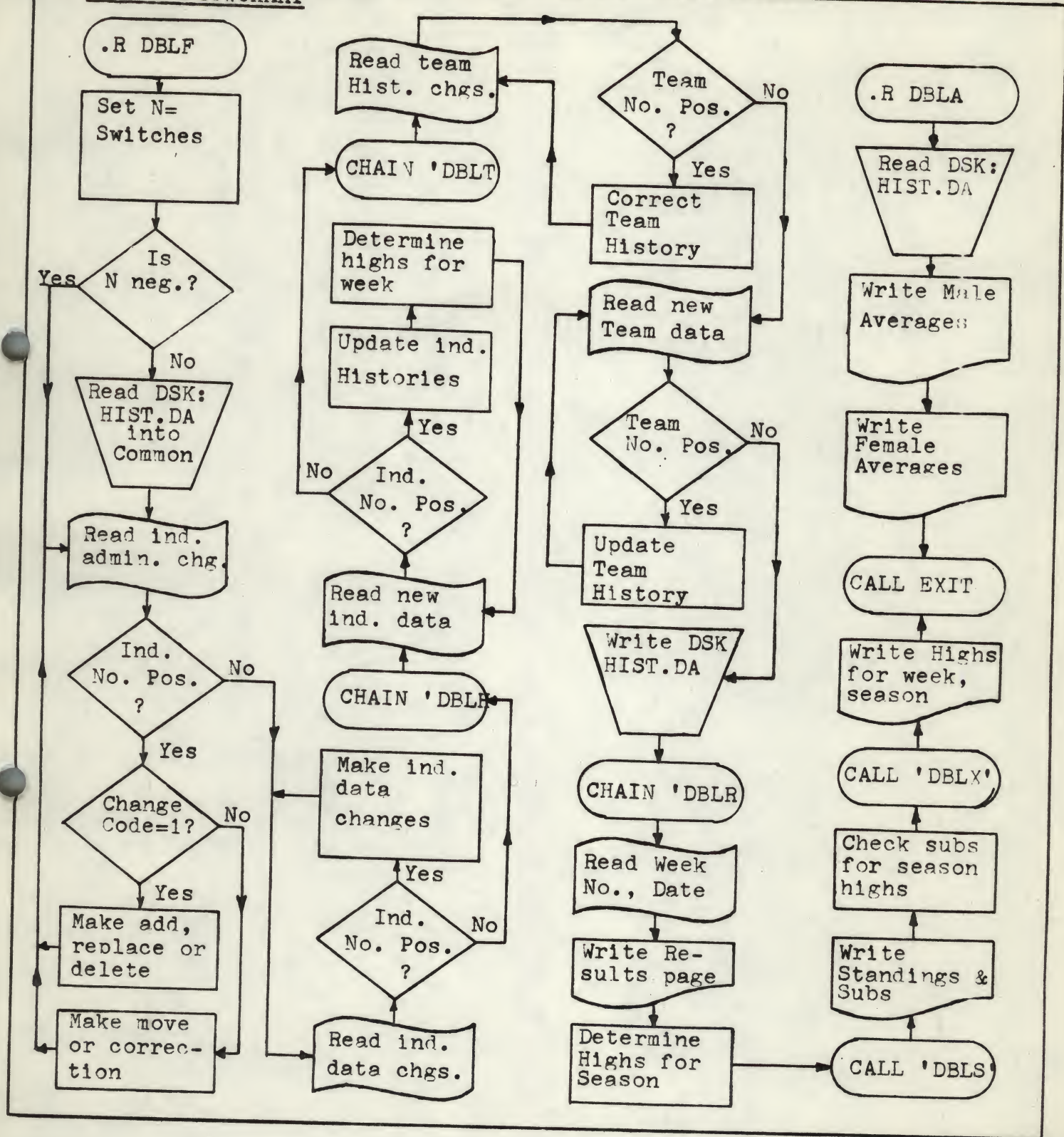
### 5. Approximate Running Time.

Preparation of the input tape takes about twenty minutes. Running the programs on a single Dectape or Linctape system (worst case) takes about five minutes.





# SYSTEM FLOWCHART







## OPERATING INSTRUCTIONS

### 1. Machine Set-up; (OS/8 system with High-speed Paper Tape Read/punch and LP08 Line Printer)

- A. Bootstrap the system.
- B. Enter the date via the system date command.
  - .DA mm/dd/yy (CR)
- C. Turn on punch and line printer.
- D. Use Editor to prepare input data file.
  - .R EDIT (CR)
  - \*WKnn.PA ← (CR)
  - #A (CR)
  - (key in data terminate with a CTRL/FORM)
  - #V (CR)
  - (list data on line printer for verification)
  - #nC (CR)
  - (correct lines as needed ending each with a CTRL/FORM)
  - #E (CR)
  - (close file and return to monitor)
- E. Use Pip to punch the input data tape.
  - .R PIP (CR)
  - \*PTP: ← WKnn.PA (CR)
  - \*HIST.BK ← HIST.DA/I (CR)
  - \*↑C
  - .
- F. Load input tape in high speed reader.
- G. Ready line printer.
- H. Set bit 0 to 0 to read old history from DSK: or  
1 to create a new history.





## OPERATING INSTRUCTIONS (cont.)

I. Prepare the weekly results print-out.

.R DBLF (CR)

J. List all bowlers in the file according to average by sex.

. R DBLA (CR)

### 2. Input/Output Formats.

#### A. History.

1. Name (3A6)
2. Building (2A2)
3. Extension (2A2)
4. Total Strings (A6)
5. Total Pinfall (A6)
6. High Game (A2)
7. High Triple (A2)
8. Sex (A2)
9. Team Captain's Number (A2)
10. Team Games Won (A2)
11. Team Total Pinfall (A6)

#### B. History Corrections.

1. Individual Number (I3) (-99 or 0 to end this phase)
2. Code (I2) (1 for add, replace or delete; 2 for move)
3. Building (2A2)
4. Extension (2A2)
5. New Individual Number (I4) (if code 2 above)
6. Individual Name (3A6)
7. Sex (A1)

#### C. History Data.

1. Individual Number (I3) (-99 or 0 to end this phase)
2. Code (I2) (3)
3. Total Strings (F4.0)
4. Total Pinfall (F7.0)
5. High Game (I4)
6. High Triple (I4)





## OPERATING INSTRUCTIONS (cont.)

### D. New Individual Data.

1. Individual Number (I3) (-99 or 0 to end this phase)
2. 1st Game (I4) (0 if absent or dummy entry)
3. 2nd Game (I4) (0 if absent or dummy entry)
4. 3rd Game (I4) (0 if absent or dummy entry)

(If a bowler is absent for all three games, no entry is necessary for that week)

### E. Team History Corrections.

1. Team Number (I3) (-99 or 0 to end this phase)
2. Team Captain's Number (I3)
3. Games Won (I4)
4. Total Pinfall (F7.0)

### F. New Team Data.

1. Team Number (I3) (-99 or 0 to end this phase)
2. Games Won (I2)
3. 1st Game (I4)
4. 2nd Game (I4)
5. 3rd Game (I4)

(To qualify for a seasonal high, a bowler must bowl at least 2/3 of the games)

### H. Week Number.

1. Week Number (I3)
2. Date (2A6)

(This program was written for a 30-week season, with 2 halves. Therefore, the team history has to be reset after week 15.)

### 3. Programmed Halts.

There are no programmed halts.

### 4. Approximate Running Time.

Twenty-five minutes including input data preparation.





C  
C  
DIGITAL BOWLING LEAGUE FILE MAINTENANCE PROGRAM

COMMON ANE,BNE,CNE,IBL,JBL,IEX,JEX,TS,TP,IHG,IHT,ISX,MHS,MHT  
COMMON NHS,NHT,IMHS1,IMHT1,INHS1,INHT1,IMHS2,IMHT2,INHS2,INHT2  
COMMON ITC,IWON,TTPF,DTE1,DTE2,MYS,MYT,ZMYA,NYS,MYT,ZNYA  
COMMON MYS1,MYT1,NYS1,MYT1,MYS2,MYT2,NYS2,MYT2  
COMMON MYA1,NYA1,MYA2,NYA2,IWK,PTS,IDUM  
DIMENSION JG(3),ITC(16),IWON(16),TTPF(16),IDUM(4)  
DIMENSION ANE(128),BNE(128),CNE(128),IBL(128),JBL(128),IEX(128)  
DIMENSION JEX(128),TS(128),TP(128),IHG(128),IHT(128),ISX(128)  
99 FORMAT(3A6,3A2)  
98 FORMAT(A2,2A6,3A2)  
97 FORMAT(I3,I2,4A2,I4,3A6,A1)  
96 FORMAT(I3,I2,3I4)  
95 FORMAT(I3,I2,F4.0,F7.0,2I4)  
94 FORMAT(2A2,A6)

C  
C  
C  
GET HISTORY INTO COMMON

N=IRDSW(0)  
IF(N)5,65,65  
65 CALL IOPEN('DSK','HIST')  
READ(4,99)(ANE(N),BNE(N),CNE(N),IBL(N),JBL(N),IEX(N),N=1,128)  
READ(4,98)(JEX(N),TS(N),TP(N),IHG(N),IHT(N),ISX(N),N=1,128)  
READ(4,94)(ITC(N),IWON(N),TTPF(N),N=1,16)  
READ MODIFICATIONS TO FILE

C  
C  
5 READ(2,97)JND,JCD,KBL,LBL,KEX,LEX,KND,XNE,YNE,ZNE,JSX  
IF(JND)55,55,10  
10 GO TO (20,30),JCD

C  
THIS IS AN ADD,REPLACE OR DELETE

20 ANE(JND)=XNE  
BNE(JND)=YNE  
CNE(JND)=ZNE  
IBL(JND)=KBL  
JBL(JND)=LBL  
IEX(JND)=KEX  
JEX(JND)=LEX  
TS(JND)=0.  
TP(JND)=0.  
IHG(JND)=0.  
IHT(JND)=0.  
ISX(JND)=JSX  
GO TO 5

C  
THIS IS A MOVE

30 ANE(KND)=XNE  
BNE(KND)=YNE  
CNE(KND)=ZNE  
IBL(KND)=KBL  
JBL(KND)=LBL  
IEX(KND)=KEX  
JEX(KND)=LEX  
TS(KND)=TS(JND)  
TP(KND)=TP(JND)  
IHG(KND)=IHG(JND)  
IHT(KND)=IHT(JND)





ISX(KND)=ISX(JND)  
GO TO 5

C READ OLD HISTORIES OR CORRECTIONS  
55 READ(2,95)JND,JCD,XTS,XTP,JHG,JHT  
IF(JND)35,35,57  
57 TS(JND)=XTS  
TP(JND)=XTP  
IHG(JND)=JHG  
IHT(JND)=JHT  
GO TO 55  
35 CALL CHAIN ('DBLH')  
END





C  
C  
DIGITAL BOWLING LEAGUE HISTORY UPDATE PROGRAM

COMMON ANE,BNE,CNE,IBL,JBL,IEX,JEX,TS,TP,IHG,IHT,ISX,MHS,MHT  
COMMON NHS,NHT,IMHS1,IMHT1,INHS1,INHT1,IMHS2,IMHT2,INHS2,INHT2  
COMMON ITC,IWON,TTPF,DTE1,DTE2,MYS,MYT,ZMYA,NYS,MYT,ZNYA  
COMMON MYS1,MYT1,NYS1,MYT1,MYS2,MYT2,NYS2,MYT2  
COMMON MYA1,NYA1,MYA2,NYA2,IWK,PTS,IDUM  
DIMENSION JG(3),ITC(16),IWON(16),TTPF(16),IDUM(4)  
DIMENSION ANE(128),BNE(128),CNE(128),IBL(128),JBL(128),IEX(128)  
DIMENSION JEX(128),TS(128),TP(128),IHG(128),IHT(128),ISX(128)  
96 FORMAT(I3,3I4)  
ITEST=512  
MHS=0  
MHT=0  
NHS=0  
NHT=0

C  
CALCULATE NEW HISTORIES

10 READ(2,96)JND,(JG(N),N=1,3)  
IF(JND)80,80,60  
WT=0.  
60 IWT=0.  
DO 65 N=1,3  
IGK=JG(N)  
IF(IGK)65,65,62  
62 TP(JND)=TP(JND)+FLOAT(IGK)  
TS(JND)=TS(JND)+1.0  
IWT=IWT+IGK  
LL=ISX(JND)  
S CLA  
S TAD \ITEST  
S CMA IAC  
S TAD \LL  
S SPA CLA  
S JMP \40  
45 IF(IGK-MHS)49,48,47  
47 MHS=IGK  
IMHS1=JND  
IMHS2=0  
GO TO 49  
48 IF(IMHS1-JND)20,49,20  
20 IMHS2=JND  
GO TO 49  
40 IF(IGK-NHS)49,42,41  
41 NHS=IGK  
INHS1=JND  
INHS2=0  
GO TO 49  
42 IF(INHS1-JND)25,49,25  
25 INHS2=JND  
49 IF(IGK-IHG(JND))65,65,68  
68 IHG(JND)=IGK  
65 CONTINUE  
LL=ISX(JND)  
S CLA

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the transparency and accountability of the organization. The second part outlines the specific procedures for recording transactions, including the use of standardized forms and the requirement for double-checking entries. The third part discusses the role of the accounting department in ensuring that all transactions are properly recorded and that the financial statements are accurate. The fourth part discusses the importance of regular audits and the role of the audit committee in overseeing the process. The fifth part discusses the importance of maintaining the confidentiality of financial information and the role of the security department in ensuring that all information is properly protected. The sixth part discusses the importance of maintaining the integrity of the financial system and the role of the internal control department in ensuring that all transactions are properly recorded and that the financial statements are accurate. The seventh part discusses the importance of maintaining the accuracy of the financial data and the role of the data management department in ensuring that all data is properly stored and that the financial statements are accurate. The eighth part discusses the importance of maintaining the security of the financial system and the role of the security department in ensuring that all information is properly protected. The ninth part discusses the importance of maintaining the integrity of the financial system and the role of the internal control department in ensuring that all transactions are properly recorded and that the financial statements are accurate. The tenth part discusses the importance of maintaining the accuracy of the financial data and the role of the data management department in ensuring that all data is properly stored and that the financial statements are accurate.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the transparency and accountability of the organization.

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7. The seventh part discusses the importance of maintaining the accuracy of the financial data and the role of the data management department in ensuring that all data is properly stored and that the financial statements are accurate.



```

S      TAD \ITEST
S      CMA IAC
S      TAD \LL
S      SPA CLA
S      JMP \90
85     IF(IWT=MHT)89,88,87
87     MHT=IWT
      IMHT1=JND
      IMHT2=0
      GO TO 89
88     IMHT2=JND
      GO TO 89
90     IF(IWT=NHT)89,92,91
91     NHT=IWT
      INHT1=JND
      INHT2=0
      GO TO 89
92     INHT2=JND
9      IF(IWT=IHT(JND))50,50,70
70     IHT(JND)=IWT
      GO TO 50
80     CALL CHAIN('DBLT')
      END

```





C

## DIGITAL BOWLING LEAGUE TEAM HISTORY UPDATE PROGRAM

```

COMMON ANE,BNE,CNE,IBL,JBL,IEX,JEX,TS,TP,IHG,IHT,ISX,MHS,MHT
COMMON NHS,NHT,IMHS1,IMHT1,INHS1,INHT1,IMHS2,IMHT2,INHS2,INHT2
COMMON ITC,IWON,TTPF,DTE1,DTE2,MYS,MYT,ZMYA,NYS,MYT,ZNYA
COMMON MYS1,MYT1,MYT1,MYT1,MYT1,MYT1,MYT1,MYT1,MYT1,MYT1
COMMON MYA1,NYA1,MYA2,NYA2,IWK,PTS,IDUM
DIMENSION ITC(16),IWON(16),TTPF(16),IDUM(4)
DIMENSION ANE(128),BNE(128),CNE(128),IBL(128),JBL(128),IEX(128)
DIMENSION JEX(128),TS(128),TP(128),IHG(128),IHT(128),ISX(128)

```

```

99  FORMAT(2I3,I4,F7.0)
98  FORMAT(I3,I2,3I4)
97  FORMAT(3A6,3A2)
96  FORMAT(A2,2A6,3A2)
95  FORMAT(2A2,A6)

```

```

200  READ(2,99)JTN,JTC,JWON,XTTPF
    IF(JTN)220,220,210
    ITC(JTN)=JTC
    IWON(JTN)=JWON
    TTPF(JTN)=XTTPF
    GO TO 200

```

```

220  READ(2,98)JTN,JWON,JPF1,JPF2,JPF3
    IF(JTN)230,230,240
240  IWON(JTN)=IWON(JTN)+JWON
    TTPF(JTN)=TTPF(JTN)+FLOAT(JPF1+JPF2+JPF3)
    GO TO 220

```

```

230  CALL OOPEN('DSK','HIST')
    WRITE(4,97)(ANE(N),BNE(N),CNE(N),IBL(N),JBL(N),IEX(N),N=1,128)
    WRITE(4,96)(JEX(N),TS(N),TP(N),IHG(N),IHT(N),ISX(N),N=1,128)
    WRITE(4,95)(ITC(N),IWON(N),TTPF(N),N=1,16)
    CALL OCLOSE
    CALL CHAIN('DBLR')
    END

```





C

## DIGITAL BOWLING LEAGUE RESULTS PROGRAM

```

COMMON ANE,BNE,CNE,IBL,JBL,IEX,JEX,TS,TP,IHG,IHT,ISX,MHS,MHT
COMMON NHS,NHT,IMHS1,IMHT1,INHS1,INHT1,IMHS2,IMHT2,INHS2,INHT2
COMMON ITC,IWON,TTPF,DTE1,DTE2,MYS,MYT,ZMYA,NYS,MYT,ZNYA
COMMON MYS1,MYT1,NYS1,MYT2,NYS2,MYT2,NYS2,MYT2
COMMON MYA1,NYA1,MYA2,NYA2,IWK,PTS,IDUM
DIMENSION ITC(16),IWON(16),TTPF(16),IDUM(4)
DIMENSION ANE(128),BNE(128),CNE(128),IBL(128),JBL(128),IEX(128)
DIMENSION JEX(128),TS(128),TP(128),IHG(128),IHT(128),ISX(128)

```

```

99 FORMAT('1'15X,'DIGITAL BOWLING LEAGUE - 1971/1972'5X,'DATE ',2A6)
98 FORMAT('0',2(4X,'TEAM NO.',I3,' AVERAGE',6X,'EXT.',4X))
97 FORMAT(1X,2(3A6,F6.1,1X,2A2,1X,2A2,4X))
96 FORMAT(I3,2A6)
READ(2,96) IWK,DTE1,DTE2
PTS=IWK*2
WRITE(3,99)DTE1,DTE2
MYS=0
MYT=0
ZMYA=0.0
NYS=0
NYT=0
ZNYA=0.0
N=-1
DO 50 M=1,8
L=10*(M-1)
N=N+2
K=N+1
WRITE(3,98)N,K
DO 50 I=1,5
L=L+1
K=L+5
TAV=TP(L)/TS(L)
CALL HIGHS(L,TAV)
RAV=TP(K)/TS(K)
CALL HIGHS(K,RAV)
WRITE(3,97)ANE(L),BNE(L),CNE(L),TAV,IBL(L),JBL(L),IEX(L),JEX(L),
1ANE(K),BNE(K),CNE(K),RAV,IBL(K),JBL(K),IEX(K),JEX(K)
CONTINUE
CALL CHAIN ('DBLS')
END

```

50





C DIGITAL BOWLING LEAGUE STANDINGS PROGRAM

```

COMMON ANE,BNE,CNE,IBL,JBL,IEX,JEX,TS,TP,IMG,IHT,ISX,MHS,MHT
COMMON NHS,NHT,IMHS1,IMHT1,INHS1,INHT1,IMHS2,IMHT2,INHS2,INHT2
COMMON ITC,IWON,TTPF,DTE1,DTE2,MYS,MYT,ZMYA,NYS,MYT,ZNYA
COMMON MYS1,MYT1,NYS1,MYT1,MYS2,MYT2,NYS2,MYT2
COMMON MYA1,NYA1,MYA2,NYA2,IWK,PTS,IDUM
DIMENSION ITC(16),IWON(16),TTPF(16),IDUM(4)
DIMENSION ANE(128),BNE(128),CNE(128),IBL(128),JBL(128),IEX(128)
DIMENSION JEX(128),TS(128),TP(128),IMG(128),IHT(128),ISX(128)
99  FORMAT('1WEEK NO.',I3,40X,2A6,/, '0',25X, 'TEAM STANDINGS')
98  FORMAT('0TEAM NUMBER'8X, 'CAPTAIN'11X, 'WON'7X, 'LOST'8X, 'PINFALL')
97  FORMAT(4X, '#', I3,8X,3A6,4X, I3,8X, I3,8X, F7,0)
89  FORMAT('0',2(4X, 'SUBS',9X, 'AVERAGE',6X, 'EXT.',4X))
88  FORMAT(1X,2(3A6,F6.1,1X,2A2,1X,2A2,4X))

```

```

      IPTS=IWK*8
      IF(IWK=15)20,20,25
25  IPTS=IPTS-120
20  WRITE(3,99)IWK,DTE1,DTE2
      WRITE(3,98)
      DO 30 N=1,16
      IBIG=IWON(1)
      TBIG=TTPF(1)
      JJ=1
      DO 31 M=1,16
      IF(IWON(M)-IBIG)31,32,33
33  IBIG=IWON(M)
      JJ=M
      TBIG=TTPF(M)
      GO TO 31
32  IF(TTPF(M)-TBIG)31,31,38
38  TBIG=TTPF(M)
      JJ=M
31  CONTINUE
      ILOST=IPTS-IWON(JJ)
      K=ITC(JJ)
      WRITE(3,97)JJ,ANE(K),BNE(K),CNE(K),IWON(JJ),ILOST,TTPF(JJ)
30  IWON(JJ)=0
      TTPF(JJ)=0,0
      WRITE(3,89)
      DO 34 M=81,128,2
      N=M+1
      IF(TS(M))40,40,35
35  TAV=TP(M)/TS(M)

```

C TEST IF SUB HAS BOWLED 2/3 OF THE WEEKS

```

      CALL HIGHS(M,TAV)
      IF(TS(N))39,39,41
39  WRITE(3,88)ANE(M),BNE(M),CNE(M),TAV,IBL(M),JBL(M),IEX(M),JEX(M)
      GO TO 40
41  RAV=TP(N)/TS(N)
      CALL HIGHS(N,RAV)
34  WRITE(3,88)ANE(M),BNE(M),CNE(M),TAV,IBL(M),JBL(M),IEX(M),JEX(M),
      1ANE(N),BNE(N),CNE(N),RAV,IBL(N),JBL(N),IEX(N),JEX(N)
40  CALL CHAIN('DBLX')
      END

```





C

## DIGITAL BOWLING LEAGUE XTENDED HONORS PROGRAM

```

COMMON ANE,BNE,CNE,IBL,JBL,IEX,JEX,TS,TP,IHG,IHT,ISX,MHS,MHT
COMMON NHS,NHT,IMHS1,IMHT1,INHS1,INHT1,IMHS2,IMHT2,INHS2,INHT2
COMMON ITC,IWON,TTPF,DTE1,DTE2,MYS,MYT,ZMYA,NYS,NYT,ZNYA
COMMON MYS1,MYT1,NYS1,NYT1,MYS2,MYT2,NYS2,NYT2
COMMON MYA1,NYA1,MYA2,NYA2,IWK,PTS,IDUM
DIMENSION ITC(16),IWON(16),TTPF(16),IDUM(4)
DIMENSION ANE(128),BNE(128),CNE(128),IBL(128),JBL(128),IEX(128)
DIMENSION JEX(128),TS(128),TP(128),IHG(128),IHT(128),ISX(128)

```

```

96  FORMAT('0HIGH TRIPLE')
95  FORMAT('0HIGH SINGLE')
94  FORMAT('0HIGH AVERAGE')
93  FORMAT('0MALE:',18X,3A6,4X,14)
92  FORMAT('0WEEKLY HONORS',14X,'HIGH SINGLE',17X,'HIGH TRIPLE')
91  FORMAT('0MALE:',11X,2(4X,3A6,2X,14))
90  FORMAT('0FEMALE:',9X,2(4X,3A6,2X,14))
86  FORMAT('0FEMALE:',16X,3A6,4X,14)
85  FORMAT(24X,3A6,4X,14)
84  FORMAT('0MALE:',18X,3A6,4X,F6.1)
83  FORMAT('0FEMALE:',16X,3A6,4X,F6.1)
82  FORMAT(24X,3A6,4X,F6.1)
81  FORMAT(21X,3A6,2X,14)
80  FORMAT(49X,3A6,2X,14)

```

```

WRITE(3,96)
WRITE(3,93)ANE(MYT1),BNE(MYT1),CNE(MYT1),MYT
IF(MYT2)44,44,45
45  WRITE(3,85)ANE(MYT2),BNE(MYT2),CNE(MYT2),MYT
44  WRITE(3,86)ANE(NYT1),BNE(NYT1),CNE(NYT1),NYT
IF(NYT2)46,46,47
47  WRITE(3,85)ANE(NYT2),BNE(NYT2),CNE(NYT2),NYT
46  WRITE(3,95)
WRITE(3,93)ANE(MYS1),BNE(MYS1),CNE(MYS1),MYS
IF(MYS2)48,48,49
49  WRITE(3,85)ANE(MYS2),BNE(MYS2),CNE(MYS2),MYS
48  WRITE(3,86)ANE(NYS1),BNE(NYS1),CNE(NYS1),NYS
IF(NYS2)50,50,51
51  WRITE(3,85)ANE(NYS2),BNE(NYS2),CNE(NYS2),NYS
50  WRITE(3,94)
WRITE(3,84)ANE(MYA1),BNE(MYA1),CNE(MYA1),ZMYA
IF(MYA2)52,52,53
53  WRITE(3,82)ANE(MYA2),BNE(MYA2),CNE(MYA2),ZMYA
52  WRITE(3,83)ANE(NYA1),BNE(NYA1),CNE(NYA1),ZNYA
IF(NYA2)54,54,55
55  WRITE(3,82)ANE(NYA2),BNE(NYA2),CNE(NYA2),ZNYA
54  WRITE(3,92)
WRITE(3,91)ANE(IMHS1),BNE(IMHS1),CNE(IMHS1),MHS,ANE(IMHT1),
18NE(IMHT1),CNE(IMHT1),MHT
IF(IMHS2)56,56,57
57  WRITE(3,81)ANE(IMHS2),BNE(IMHS2),CNE(IMHS2),MHS
56  IF(IMHT2)58,58,59
59  WRITE(3,80)ANE(IMHT2),BNE(IMHT2),CNE(IMHT2),MHT
58  WRITE(3,90)ANE(INHS1),BNE(INHS1),CNE(INHS1),NHS,ANE(INHT1),
18NE(INHT1),CNE(INHT1),NHT
IF(INHS2)60,60,61
61  WRITE(3,81)ANE(INHS2),BNE(INHS2),CNE(INHS2),NHS
60  IF(INHT2)62,62,63
63  WRITE(3,80)ANE(INHT2),BNE(INHT2),CNE(INHT2),NHT
62  CALL EXIT
END

```





C DIGITAL BOWLING LEAGUE HIGHS SUBROUTINE SUBPROGRAM

SUBROUTINE HIGHS(KK, AVE)

COMMON ANE, BNE, CNE, IBL, JBL, IEX, JEX, TS, TP, IHG, IHT, ISX, MHS, MHT

COMMON NHS, NHT, IMHS1, IMHT1, INHS1, INHT1, IMHS2, IMHT2, INHS2, INHT2

COMMON ITC, IWON, TTPF, DTE1, DTE2, MYS, MYT, ZMYA, NYS, NYT, ZNYA

COMMON MYS1, MYT1, NYS1, NYT1, MYS2, MYT2, NYS2, NYT2

COMMON MYA1, NYA1, MYA2, NYA2, IWK, PTS, IDUM

DIMENSION ITC(16), IWON(16), TTPF(16), IDUM(4)

DIMENSION ANE(128), BNE(128), CNE(128), IBL(128), JBL(128), IEX(128)

DIMENSION JEX(128), TS(128), TP(128), IHG(128), IHT(128), ISX(128)

IF(TS(KK)-PTS)23,10,10

ITEST=512

LL=ISX(KK)

CLA

TAD \ITEST

CMA IAC

TAD \LL

SPA CLA

JMP \40

IF(AVE-ZMYA)49,48,47

ZMYA=AVE

MYA1=KK

MYA2=0

GO TO 49

MYA2=KK

IF(IHT(KK)-MYT)39,38,37

MYT=IHT(KK)

MYT1=KK

MYT2=0

GO TO 39

MYT2=KK

IF(IHG(KK)-MYS)29,28,27

MYS=IHG(KK)

MYS1=KK

MYS2=0

RETURN

MYS2=KK

RETURN

IF(AVE-ZNYA)43,42,41

ZNYA=AVE

NYA1=KK

NYA2=0

GO TO 43

NYA2=KK

IF(IHT(KK)-NYT)53,32,31

NYT=IHT(KK)

NYT1=KK

NYT2=0

GO TO 33

NYT2=KK

IF(IHG(KK)-NYS)23,22,21

NYS=IHG(KK)

NYS1=KK

NYS2=0

RETURN

NYS2=KK

RETURN

END





C

## DIGITAL BOWLING LEAGUE AVERAGES PROGRAM

COMMON ANE,BNE,CNE,IBL,JBL,IEX,JEX,TS,TP,ING,IHT,ISX,ITC,IWON  
COMMON TTPF

DIMENSION ANE(128),BNE(128),CNE(128),IBL(128),JBL(128),IEX(128)  
DIMENSION JEX(128),TS(128),TP(128),ING(128),IHT(128),ISX(128)  
DIMENSION ITC(16),IWON(16),TTPF(16)

99 FORMAT(3A6,3A2)  
98 FORMAT(A2,2A6,3A2)  
96 FORMAT('1',15X,'DIGITAL BOWLING LEAGUE - 1971/1972')  
95 FORMAT('0',5X,'NAME',11X,'BLOG EXT. GAMES PINFALL AVERAGE',  
14X,'H G',4X,'H T')  
97 FORMAT('0',25X,'MALES')  
91 FORMAT('0',24X,'FEMALES')  
94 FORMAT(2A2,A6)  
93 FORMAT(1X,3A6,2X,2A2,2X,2A2,2X,F4.0,3X,F7.0,3X,F6.1,3X,I4,3X,I4)

CALL IOPEN('DSK','HISI')  
READ(4,99)(ANE(N),BNE(N),CNE(N),IBL(N),JBL(N),IEX(N),N=1,128)  
READ(4,98)(JEX(N),TS(N),TP(N),ING(N),IHT(N),ISX(N),N=1,128)  
READ(4,94)(ITC(N),IWON(N),TTPF(N),N=1,16)

ITEST=512

WRITE(3,96)

WRITE(3,97)

WRITE(3,95)

DO 50 M=1,128

IF(TS(M))60,60,10

BIGA=0.0

DO 40 K=1,128

IF(TP(K))40,40,20

LL=ISX(K)

CLA

TAD \ITEST

CMA IAC

TAD \LL

SPA CLA

IMP \40

AVE=TP(K)/TS(K)

IF(AVE-BIGA)40,40,30

BIGA=AVE

J=K

CONTINUE

IF(BIGA)60,60,45

WRITE(3,93)ANE(J),BNE(J),CNE(J),IBL(J),JBL(J),IEX(J),JEX(J),TS(J),  
1TP(J),BIGA,ING(J),IHT(J)

TP(J)=0.0

WRITE(3,96)

WRITE(3,91)

WRITE(3,95)

DO 80 M=1,128

IF(TS(M))90,90,70

BIGA=0.0

DO 85 K=1,128

IF(TP(K))85,85,65

AVE=TP(K)/TS(K)

IF(AVE-BIGA)85,85,75

BIGA=AVE

J=K





```
85  CONTINUE
    IF(BIGA)90,90,87
87  WRITE(3,93)ANE(J),BNE(J),CNE(J),IBL(J),JAL(J),IEX(J),JEX(J),TS(J),
    1TP(J),BIGA,IHG(J),IHT(J)
80  TP(J)=0.0
90  CALL EXIT
    END
```

